

# Notice of Allowability

Application No.

10/510,248

Examiner

Charles I. Boyer

Applicant(s)

DENNIS ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application received October 1, 2004.
2. ☒ The allowed claim(s) is/are 2-5, 14-16 and 23-33.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 10/01/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

CHARLES BOYER  
PRIMARY EXAMINER

*Charles Boyer* 11/12/05

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jennifer Skord on November 7, 2005.

The application has been amended as follows:

Amend claims 1-25 as follows:

1. (Canceled)
2. (Currently Amended) The method of claim 24 wherein said inorganic salts are deposited from solutions or suspensions in contact with the pipework.
3. (Currently Amended) The method of claim 24 wherein said inorganic salts comprise phosphate, alkylphosphate, molybdate and phosphomolybdate salts.
4. (Previously Amended) The method of claim 3 wherein said salts comprise the phosphate, butylphosphate, molybdate and phosphomolybdate salts of zirconium, tellurium, gadolinium, caesium, iron and uranium.
5. (Currently Amended) The method of claim 24 wherein said contaminating materials result in the partial or total blockage of the pipework.

6 – 13 (Canceled)

14. (Currently Amended) The method of claim 24 wherein said treatment is carried out in the presence of at least one additive.

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15. (Previously Amended) The method of claim 14 wherein said additive comprises a carbonate or bicarbonate salt.

16. (Previously Amended) The method of claim 15 wherein said carbonate or bicarbonate salt comprises caesium carbonate or ammonium bicarbonate.

17 – 22 (Canceled)

23. (Currently Amended) The method of claim 24 comprising the treatment of pipework used in the processing of Highly Active Liquor with an aqueous solution comprising 1.0M ammonium carbamate and further comprising 0.2M caesium carbonate at 60°C for 2 hours.

24. (Currently Amended) A method for the removal of contaminating materials from pipework in the nuclear processing industry, said contaminating materials comprising deposits on the pipework which comprise inorganic salts having low solubility levels, wherein said contaminating materials cause a reduction in the effective internal diameter of the pipes and thereby effect a reduction in the rate of flow of a fluid through the pipework, the method comprising treating pipework used in the nuclear processing industry for the processing of Highly Active Liquor as follows:

(a) treating with 2.0M nitric acid at room temperature; followed by

(b) washing with water at room temperature; followed by

(c) treating with 1.0M or 3.0M aqueous ammonium carbamate solution at 60°C for 2 hours.

25. (Currently Amended) A method for the removal of contaminating materials from pipework in the nuclear processing industry, said contaminating materials comprising deposits on the pipework which comprise inorganic salts having low solubility levels, wherein said contaminating materials cause a reduction in the effective internal diameter of the pipes and thereby effect a reduction in the rate of flow of a fluid through the pipework, the method comprising treating pipework used in the nuclear processing industry for the processing of Highly Active Liquor as follows:

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(a) treating with 1.0M or 3.0M aqueous ammonium carbamate solution at 60°C for 2 hours; followed by

(b) treating with 2.0M nitric acid at room temperature; followed by

(c) washing with water at room temperature.

26. (New) The method of claim 25 wherein said inorganic salts are deposited from solutions or suspensions in contact with the pipework.

27. (New) The method of claim 25 wherein said inorganic salts comprise phosphate, alkylphosphate, molybdate and phosphomolybdate salts.

28. (New) The method of claim 27 wherein said salts comprise the phosphate, butylphosphate, molybdate and phosphomolybdate salts of zirconium, tellurium, gadolinium, caesium, iron and uranium.

29. (New) The method of claim 25 wherein said contaminating materials result in the partial or total blockage of the pipework.

30. (New) The method of claim 25 wherein said treatment is carried out in the presence of at least one additive.

31. (New) The method of claim 30 wherein said additive comprises a carbonate or bicarbonate salt.

32. (New) The method of claim 31 wherein said carbonate or bicarbonate salt comprises caesium carbonate or ammonium bicarbonate.

33. (New) The method of claim 25 comprising treatment pipework used in the processing of Highly Active Liquor with an aqueous solution comprising 1.0M ammonium carbamate and further comprising 0.2M caesium carbonate at 60°C for 2 hours.

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The following is an examiner's statement of reasons for allowance: Applicants have claimed a method for the removal of contaminating materials from pipework in the nuclear processing industry, the method comprising treating pipework used in the nuclear processing industry for the processing of Highly Active Liquor with at least three treatment steps;

- (a) treating with 1.0M or 3.0M aqueous ammonium carbamate solution at 60°C for 2 hours;
- (b) treating with 2.0M nitric acid at room temperature; and
- (c) washing with water at room temperature.

The prior art does not teach a three-step process utilizing the sequential application of a nitric acid solution, an ammonium carbamate solution, and water within the specific process parameters presently claimed.

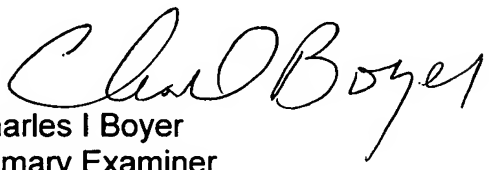
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles I. Boyer whose telephone number is 571 272 1311. The examiner can normally be reached on M-F 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571 272 1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles I Boyer  
Primary Examiner  
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